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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,765	04/19/2005	Jean Laurencot	LAURENCOT2	3764

7590 09/15/2009

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EXAMINER	
LU, JIPING	
ART UNIT	PAPER NUMBER
3743	
MAIL DATE	DELIVERY MODE
09/15/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,765	LAURENCOT, JEAN	
	Examiner	Art Unit	
	Jiping Lu	3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/4/09 has been entered.

Information Disclosure Statement

2. It is noted that applicant submitted several references on 8/22/2008 without an Information Disclosure Statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office. Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 8-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenau (U. S. Pat. 4,356,641).

Rosenau teaches a method of treating top and bottom sealed woody material within two chambers (at 20, 21 and at 22, 23). The heat treatment is controlled by monitoring means 15, humidity sensors 13, 14, 16-18, temperature sensors 20-23, heating means 12 and circulating heat transfer fluid 19. The heating method is same as claimed in claim 8. The sensors 13-23 permanently monitor and measure conditions and compare data in each chamber. Based on the data received, the operations of heater 12, blower 19 and heating cycle regulator 15 based on the claimed formula. With regard to the last four lines of claim 8, the claimed mathematical functions are deemed to be conventional, common practice and common sense in the heating art. Therefore, it would have been obvious to one skill in the art at the time the invention was made to govern the rise in temperature as a function of the behavior of the load of woody material in terms of its thermal conductivity and as a function of equilibrium between the flow rate and the speed of the heat-transfer fluid between the two chambers in order to obtain a predictable woody material treating result. This a common practice. The thermal conductivity of the loaded woody material, e.g. lumber, is depending on the thickness of the wood. The more woody material to be treated will meet with less thermal conductivity and will take a longer time to treat. The flow rate is dependent upon the speed of the air blower 19. The slower the blower speed will require more time and more heat output from heater 12 to treat the wood material. The heat transfer fluid speed is dependent upon the blower speed 19 and the heat source output 12. The slower the blower speed and lesser heat output will require more time to treat the woody material. Therefore, the claimed running of heating cycle in the last four line of claim 8 is nothing but

common sense and well known in the heating art. In other words, the slower the blower speed and the lowering of heat output and increase of wood load to be treated (decrease thermal conductivity) will slow the operating running cycles of the heating. Conversely, the faster blower speed, the higher heat output source and the lesser workload (increase thermal conductivity) will hasten the operating running heating cycles. Regarding the term "equilibrium", it is nothing but a balance between two factors of air flow rate and the heat-transfer fluid speed. Such claimed "equilibrium" has already taken in consideration in the examples give above. With regard to claims 12-22 the claimed mathematical formula and temperature ranges are deemed to be an obvious matter of operation in order to obtain an optimal result. The claimed mathematical formula in claims 12-22 is nothing but the optimal heating running cycles based on the common sense practice as explained above.

5. Claims 8-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weis (U. S. Pat. 3,744,144).

Weis teaches a method of treating top and bottom sealed woody material within two chambers (at 30 and at 44). The heat treatment is controlled by monitoring means 60, humidity sensors 27, temperature sensors 70, 76, heating means 26 and circulating heat transfer fluid 24. The heating method is same as claimed in claim 8. With regard to the last four lines of claim 8, the claimed mathematical functions are deemed to be conventional and well known in the heating art. Therefore, it would have been obvious to one skill in the art at the time the invention was made to govern the rise in temperature as a function of the behavior of the load of woody material in terms of its thermal conductivity and as a function of equilibrium between the flow rate and the speed of the heat-transfer fluid between the two chambers in order to obtain a

predictable woody material treating result. This a common practice and a common sense. The thermal conductivity of the loaded woody material 22, e.g. lumber, is depending on the thickness of the wood 22. The more woody material to be treated will meet with less thermal conductivity and will take a longer time to treat. The flow rate is dependent upon the speed of the air blower 24. The slower the blower speed 24 will require more time and more heat output from heater 26 to treat the wood material 22. The heat transfer fluid speed is dependent upon the blower speed 24 and the heat source output 26. The slower the blower speed 24 and lesser heat output 26 will require more time to treat the woody material 22. Therefore, the claimed running of heating cycles in the last four line of claim 8 is nothing but common sense and well known in the heating art. In other words, the slower the blower speed and the lowering of heat output and increase of wood load to be treated (decrease thermal conductivity) will slow the operating running cycles of the heating. Conversely, the faster blower speed, the higher heat output source and the lesser workload (increase thermal conductivity) will hasten the operating running heating cycles. Regarding the term "equilibrium", it is nothing but a balance between two factors of air flow rate and the heat-transfer fluid speed. Such claimed "equilibrium" has already taken in consideration in the examples give above. With regard to claims 12-22 the claimed mathematical formula and temperature ranges are deemed to be an obvious matter of operation in order to obtain an optimal result. The claimed mathematical formula in claims 12-22 is nothing but the optimal heating running cycles based on the common sense practice as explained above.

6. Claims 8-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Little (U. S. Pat. 5,325,604).

Little teaches a method of treating top and bottom sealed woody material 22 within two chambers (at 70 and at 72). The heat treatment is controlled by monitoring means 30, humidity sensors 76, temperature sensors 74, heating means 32 and circulating heat transfer fluid 40. The heating method is same as broadly claimed in claim 8. With regard to the last four lines of claim 8, the claimed mathematical functions are deemed to be conventional and well known in the heating art. Therefore, it would have been obvious to one skill in the art at the time the invention was made to govern the rise in temperature as a function of the behavior of the load of woody material in terms of its thermal conductivity and as a function of equilibrium between the flow rate and the speed of the heat-transfer fluid between the two chambers in order to obtain a predictable woody material treating result. This is a common practice and common sense. The thermal conductivity of the loaded woody material, e.g. lumber 22, is depending on the thickness of the wood 22. The more woody material to be treated 22 will meet with less thermal conductivity and will take a longer time to treat. The flow rate is dependent upon the speed of the air blower 38. The slower the blower speed 38 will require more time and more heat output from heater 32 to treat the wood material 22. The heat transfer fluid speed 40 is dependent upon the blower speed 38 and the heat source output 32. The slower the blower speed 38 and lesser heat output 32 will require more time to treat the woody material 22. Therefore, the claimed running of heating cycles in the last four line of claim 8 is nothing but common sense and well known in the heating art. In other words, the slower the blower speed 38 and the lowering of heat output 32 and increase of wood load to be treated 22 (decrease thermal conductivity) will

slow the operating running cycles of the heating. Conversely, the faster blower speed, the higher heat output source and the lesser workload (increase thermal conductivity) will hasten the operating running heating cycles. Regarding the term "equilibrium", it is nothing but a balance between two factors of air flow rate and the heat-transfer fluid speed. Such claimed "equilibrium" has already taken in consideration in the examples give above. With regard to claims 12-22 the claimed mathematical formula and temperature ranges are deemed to be an obvious matter of operation in order to obtain an optimal result. The claimed mathematical formula in claims 12-22 is nothing but the optimal heating running cycles based on the common sense practice as explained above.

Response to Arguments

7. Applicant's arguments filed on 8/4/09 with respect to claims have been considered but are not persuasive to overcome the rejection. The claims presented fail to define over the prior art references. The claimed heating process is solely based on the last four lines of claim 8 and carried out by the old and known lumber heating apparatus (claim 8, lines 1-18). All prior art references applied pertain to the high temperature heat treatment of woody or ligneous material same as the applicant's. Each and every piece of the prior art references does show the claimed well know lumber heating device like, two chambers, monitoring means, humidity sensors, temperature sensors, heating means, blower, regulator, heat transfer fluid, lumbers to be treated identical as claimed. Therefore, to operate these well known lumber heating devices in accordance with the last 4 lines of claim 8 is strictly a common sense as explained in the rejection above. The arguments regarding the temperature ranges, e.g. 110 to 180 ^{0}F is not in

the broad claim 8. Therefore, it is not necessary to comment on the limitations not in the broad claim 8. The applicant appears to rely on the newly added term "ligneous material" for patentability. The examiner considers the claimed "ligneous material" is same as the woody material as shown by the prior art references as applied. If the applicant disagrees with the examiner's interpretation, then, a rejection of all claims under the first paragraph of 35 USC 112 will be necessary. In the meantime, the applicant must point out from the original specification to show such support for the newly added term "ligneous material".

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KENNETH RINEHART can be reached on 571-272-4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jiping Lu/
Primary Examiner
Art Unit 3743

J. L.